AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 | 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0002	08-Apr-2007		

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
AFGHANISTAN ENGINEER DISTRICT US ARMY CORPS OF ENGINEERS KABUL APO AE 09356	W917PM	See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W917PM-07-R-0036
	X	9B. DATED (SEE ITEM 11) 21-Mar-2007
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [ ] is extended, [X] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Security Upgrades

Delete Section 001010 Sample Scope of Work, Section 001015 Sample Technical Requirements and drawings in its entirety. Replace with the attached Sample Bid Schedule 00010, Section 001010 Scope of Work, Section 001015 Technical Requirements and drawings.

All other terms and conditions remain unchanged.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 08-Apr-2007

SECTION 00010

PROPOSAL SCHEDULE

The Contractor shall provide a price for all items, including those labeled, "Optional Items." The Government will evaluate the Contractor's entire proposal to determine which proposal represents the best value to the Government.

No.	Description	Qty	Unit	Unit Price	Total Amount
1.	**Base Proposal:**				
0001	Design/Assessment Costs	1	LS	xxx	$_____
0002	Mobilization	1	LS	xxx	$_____
0003	Demobilization	1	LS	xxx	$_____
0004	Site Development (Construction)				
0004AA	Repair/Upgrade Perimeter Wall	1	LS	_____	$_____
0004AB	Upgrade Primary ECP	1	LS	_____	$_____
0004AC	Upgrade Secondary ECP	1	LS	_____	$_____
0004AD	Construct Guard Towers	8	Each	_____	$_____

TOTAL BASE PROPOSAL ITEMS $_____
(total of all above costs - includes design and construction)

TOTAL PROPOSAL $_____
(Base Proposal and Options)

PROPOSAL SCHEDULE NOTES

1. Offeror shall submit prices on all items.

2. Only one task order contract for the entire schedule will be awarded under this solicitation. This project will be awarded as a firm fixed price contract. This project will be awarded as a lump sum contract. This Proposal Schedule is an accounting tool for allocating funds to applicable budget.

3. All costs associated with this project (i.e., security, insurance etc.,) shall be included in the line items in the bidding schedule.

-- END OF SECTION --

SECTION 01010

SCOPE OF WORK

1. GENERAL

1. Introduction

1.1. Organization/Background

1.1.1. The ANA Logistics Command Central Maintenance Depot (Central Workshop) supports the national tactical and strategic operations for the Afghan National Army as directed by the Ministry of Defense.

1.1.2. Perimeter Security at the Central Workshop is inadequate exposing the local staff, US Military personnel and other visitors to an unacceptable level of danger and exposed the small and large arms and ammunition stored at the Central Workshop to an unacceptable level risk of theft. The perimeter wall has areas that have bricking that can be easily pushed aside creating holes; is less than 1.75 meters tall in places; lacks adequate places to mount concertina wire; and does not completely enclose the Central Workshop compound. Both the main and secondary Entry Control Points (ECPs) lack adequate vehicle barriers, vehicle search areas and personnel search areas. The secondary ECP is separated from the main compound by a ditch allowing only a single point of access to the majority of the Central Workshop. Statement of Work (SOW) defines the work to be accomplished and includes all items necessary to correct the above items.

1.1.3 Unexploded ordinance, mines and other such materials have been located throughout the Central Workshop. Before starting inspecting or beginning any work the contractor shall coordinate with COR and the Facility Engineer.

2. Objective/Scope

The objective of this ANA Central Workshop project is to provide a safe working environment for ANA soldiers and civilian workers, US and Coalition military and civilian workers, Non-Governmental Organization workers and any other visitors to the Central Workshop. This task order covers the planning, engineering, acquisition, and implementation of all required labor and materials to provide for the Perimeter Security Upgrades at the Central Workshop as outlined within this SOW.

3. Site Survey

A site survey shall be accomplished to determine the location of all work to be performed, the quantity or volume of all materials to be supplied and the quantity of all labor needed.

4. Government Furnished Resources

The Government will **NOT** provide administrative workspace for Contractors within Government facilities. The Government will **NOT** provide Local Quarters for Contractor personnel. The government will provide access to facilities for which implementation activities are to take place.

The government will also provide very limited facilities for storage, setup and preparation. Contractor shall make every attempt to store materials off site and bring a limited amount of materials, one or two days supply, to the job site.

5. LOCATION

The site is located in Kabul, Afghanistan as shown on attached drawings.

6. UNEXPLODED ORDNANCE (UXO)

7.1 It is expected that no mines are in the project area. The contractor shall search, identify and clear all unexploded ordnances (UXO's) for three (3) meters on each side of the fenceline and at all building and ECP construction sites. The contractor shall provide the government a letter indicating that the site is clear of UXO's and is available for construction operations to proceed. All mine and UXO clearing shall be done in accordance with the International Mine Action Standards (IMAS) and clearance shall be accomplished to the anticipated foundation depth. These standards can be found at http://www.mineactionstandards.org. Work will not commence in any area that has not been cleared. For any and all areas on or around the site, it is the responsibility of the Contractor to be aware of the risk of encountering mines and UXO's and to take all actions necessary to assure a safe work area to perform the requirements of this contract. The Contractor assumes the risk of any and all personal injury, property damage or other liability, arising out of and resulting from any Contractor action hereunder. In any case the Contractor shall be responsible for identifying all mines and UXO's within the entire site. Once the mines and UXO's are identified, the Contractor shall place them in a location in accordance with IMAS. This work shall proceed in phases, concurrently with other construction efforts as determined by the contractor. If a UXO/mine is encountered after site clearance and during project construction, UXO/mine disposal shall be handled in accordance with Section 01015, Technical Requirements.

7. SUMMARY OF WORK

7.1 Contractor Requirements

- **Specific Tasks Descriptions**
  - Perimeter Wall
    - Open and Weak Areas. The contractor shall inspect the entire perimeter wall of the Central Workshop and any areas that has loose laid or partially mortared brick installed shall be reworked with a full mortar bed. Any areas that have gaps or open areas shall be re-worked. All re-worked areas shall be installed to the depth of the current wall. No more re-work shall be started that can be completed at that time. NO OPEN AREAS IN THE PERIMETER WALL ARE ALLOWED WITHOUT WORK BEING PERFORMED AND CENTRAL WORKSHOP SECURITY PERSONNEL BEING PRESENT.
    - Wall Height. The contractor shall inspect the entire perimeter wall of the Central Workshop and any places where the height is less than THREE (3) meters from exiting grade shall have the height increased to THREE (3) meters. The perimeter wall shall have a smooth flowing appearance it shall not have any step downs or have a blocky appearance. The top of the wall shall be designed to shed water.
    - Concertina Wire Mounts. The contractor shall install concertina wire mounts on the top of the perimeter wall. These mounts shall be firmly attached or embedded in the wall structure. The mounts shall be located at every change in wall direction, within one meter of each side of a chance of wall direction and no more than two meters apart elsewhere along the perimeter wall. The mounts shall provide for voids no more than a 100mm between the concertina wire and

the wall. High tension barbed wire shall be used to fill any voids larger than 100mm. The contractor shall install government furnished concertina wire.

- Wall Extension. The contactor shall construct two extensions of the existing perimeter wall. One will provide security for the primary Entry Control Point (ECP) upgrade. The second will prevent access to the vehicle maintenance area from the existing parking area. The wall extensions will comply with other requirements as stated within this SOW.

- Primary Entry Control Point. (See CMD Primary ECP Upgrade Concept Drawing)
  - Filled Areas
    - Fill Material. The contractor shall provide suitable fill material and cover material to bring the construction area up to the grade of the exiting entry road. Some fill material may be available from the demolition of facilities within the Central Workshop. The contractor shall be responsible for coordinating with other contractors to see if construction debris is available. The fill material shall be laid in 300mm lifts, moistened, if necessary, and compacted to 95 percent CBR, or equivalent, to prevent settling.
    - Cover Material. The contractor shall furnish and install a minimum 300mm of cover material to the upgraded ECP. The lower 150mm of cover material shall be 100mm (nominal) gravel spread and rolled. The remaining of cover material shall be 40mm gravel spread and rolled.
  - New Walls or Barriers. (See ECP Separation Wall Concept Drawing) Construct new walls or install barriers to create the ECP area, the search areas and parking areas. The walls or barriers shall have a 300mm reinforced concrete core with exterior designed to match existing perimeter wall. The walls or barriers shall otherwise comply with the wall specifications as required in this SOW.
  - Individual Search Area. The individual search area shall have a metal shed type roof installed to provide shade. The roof shall be installed a minimum of one meter above the new wall or barriers to provide for air circulation and shall be sloped toward existing trees.
  - Vehicle Control Arms. Provide and install vehicle control arms as shown. The vehicle control arms shall be similar in construction to the existing vehicle control arm.
  - Pull-Up Barriers. Construct and install pull-up barriers as described in the CMD Pull-Up Barrier Concept Barrier.
- Secondary Entry Control Point (See CMD Secondary ECP Upgrade Concept Drawing)
  - Replace Access Gates (See CMD Seconday ECP Sliding Gate Concept Drawing)
    - Remove a portion of the existing exterior wall one meter from the existing exterior utility pole.
    - Replace existing personnel and vehicular gates with a single sliding vehicular access gate with integrated personnel gate. Work shall include installing the all metal gate, rail with ramps, gate supports, gate catch channel and high tension barbed wire. All metal shall have a thickness of 5mm (nominal). The gate shall be supported by a minimum of two gate supports at all times.
  - New Walls or Barriers. (See ECP Separation Wall Concept Drawing) Construct new walls or install barriers to create the ECP area. The walls or barriers shall have a 300mm reinforced concrete core with exterior designed to match existing perimeter wall. The walls or barriers shall otherwise comply with the wall specifications as required in this SOW.

- Vehicle Control Arms (Drop Arms). Provide and install vehicle control arms as shown. The vehicle control arms shall be similar in construction to the existing vehicle control arm at the primary ECP.
- Vehicle Crossing Point.
  - The contractor shall furnish and install a culvert or similar constructed item and the necessary fill and cover material provide for the crossing of the existing ditch. The culvert shall be large enough to allow for the natural flow of water when the water level reaches 300mm from the top of the ditch.
  - The existing ditch retaining wall will need to be altered and reinforced.
  - Two retaining wall shall be installed on either side of the new crossing point and shall extend a minimum of one meter above ground level. The top of the new walls shall be designed to shed water.
- Pull-Up Barrier. Construct and install pull-up barrier as described in the CMD Pull-Up Barrier Concept Barrier.

- The contractor shall furnish and install eight (8) new guard towers (See CMD Guard Tower Concept Drawing).
  - The contractor shall install a reinforced concrete foundation of no less than 150mm with a 300m thickened edge.
  - The contractor shall construct and install eight (8) stackable and re-locatable guardtowers. The towers shall be of all metal construction capable of supporting itself and contractor installed sand bags.
  - Install access ladder and landing
  - Install a 1.0M x .03M window on each side of the upper section of each guard tower.

8. Contractor Requirements

The contractor shall design and construct the facilities as a design-construct contract and shall be in accordance with the requirements stated in Section 01015: TECHNICAL REQUIREMENTS. Technical concept drawings are attached as a reference, however, Contractor is required to submit 50% and 100% complete design including drawings and specifications for review and approval. Refer to attachment following this section for more specifics for required spaces. The design and construction work shall include but not be limited to that shown within attached table and described herein.

All requirements set forth in the Scope of Work, but not included in the Technical Requirements, shall be considered as set forth in both, and vice versa.

8.1.1 Demolition and Grading

Minor site demolition is required prior to construction of new work. Grading at the site is required and shall conform to requirements within references herein.

8.1.2 Roads and Pavements

Gravel roadways are required at the ECPs and shall be designed and constructed based upon recommendations from geotechnical analysis as required herein.

8.1.3 Life Safety

Design and Construct circulation pathways and exit stairs in accordance with building code references herein. Fire sprinkler system is not required. The facility shall comply with all other safety requirements as required within references.

9. COMPLETION OF WORK

All work required under this contract shall be completed as scheduled in Section 00150. Liquidated damages in the amount of $2,061.28 for every calendar day of delay shall be assessed and charged to the Contractor.

10. SPARE PARTS

Refer to other sections herein for requirements.

11. REFERENCES

Refer to Section 01015 for required references.

-- End of Section --

SECTION 01015

TECHNICAL REQUIREMENTS

1. GENERAL

1.1 The Contractor's design and construction must comply with technical requirements contained herein. The Contractor shall provide design and construction using the best blend of cost, construction efficiency, system durability, ease of maintenance and environmental compatibility.

1.2 These design and product requirements are minimum requirements. The Contractor is encouraged to propose alternate design or products (equipment and material) that are more commonly used in the region; will be equally or more cost effective or allow for more timely completion, but furnish the same system durability, ease of maintenance and environmental compatibility. The Contractor will be required to submit information as requested by the Contracting Officer to make a comparison of the proposed alternate. All variations must be approved by the Contracting Officer.

1.3 ASBESTOS CONTAINING MATERIALS

Asbestos containing material (ACM) shall not be used in the design and construction of this project. If no other material is available which will perform the required function or where the use of other material would be cost prohibitive, a waiver for the use of asbestos containing materials must be obtained from the Contracting Officer.

1.4 SAFETY

1.4.1 Unexploded Ordnance (UXO)

1.4.1.1 UXO/mine Discovery During Project Construction

It is expected that no mines are in the project area. It is the responsibility of the Contractor to be aware of the risk of encountering UXO and to take all actions necessary to assure a safe work area to perform the requirements of this contract. If after the entire site to include three (3) meters on each side of the fenceline and at all building and ECP construction sites has been cleared of UXO per the International Mine Action Standards (IMAS) and clearance is done to the anticipated foundation depth, the Contractor becomes aware of or encounters UXO or potential UXO during construction, the Contractor shall immediately stop work at the site of the encounter, move to a safe location, notify the COR, and mitigate any delays to scheduled or unscheduled contract work. The Contractor shall remove and dispose of UXO's per the International Mine Action Standards (IMAS). These standards can be found at http://www.mineactionstandards.org. The Contractor assumes the risk of any and all personal injury, property damage or other liability, arising out of and resulting from any Contractor action hereunder. In these cases the contractor shall be required to identify and dispose of the ordnance.

Scrap metal shall be the property of the host Government. The scrap metal on site shall be moved to an area away from the site perimeter as directed by the Contracting Officer's Representative, and left for the host Government to remove and/or salvage.

NOTE: For previous demining information, the following points of contact from the UN Mine Action Center for Afghanistan are provided:

Reiko Kurihara, project manager, email reiko@unmaca.org
Cell phone: +93 070 284 686
Sandy Powell, chief Operations Officer, sandy@unmaca.org
Cell phone: +93 (0) 79 330 992

1.4.1.2 Explosives Safety

1.4.1.2.1 General Safety Considerations

General safety considerations applicable to personnel, both essential and non-essential, at project sites where UXO may be encountered include:

a. Do not carry fire or spark-producing devices.
b. Do not conduct explosive or explosive-related operations without approved procedures and proper supervision and UXO safety support.
c. Do not become careless by reason of familiarity with UXO or the reported probability level of UXO contamination.
d. Do not conduct explosive or potentially explosive operations during inclement weather.
e. Avoid contact with UXO except during UXO clearance operations.
f. Conduct UXO-related operations during daylight hours only.
g. Employ the "buddy system" at all times.

1.4.1.2.2 Activity Hazard Analysis (AHA) Briefings

a. Activity Hazard Analysis's shall be prepared in accordance with the Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1.
b. Hazard analyses will be prepared and briefed by personnel that are knowledgeable in UXO and explosives safety standards and requirements. These personnel should understand the specific operational requirement and hazard analysis methodologies. A hazard analysis will be performed for each activity to determine the significance of any potential explosive-related hazards. Explosive residues may be discovered or exposed during UXO operations in the form of powder or various granular and powder based pellets. These contaminants can enter the body through the skin or by ingestion if proper personal hygiene practices are not followed. Explosive fillers such as white phosphorus are dangerously reactive in air and acute exposure can result in serious injury to the skin, eyes, and mucous membranes. They are also a fire hazard.

Safety requirements (or alternatives) that will either eliminate the identified hazards, mitigate or control them to reduce the associated risks to an acceptable level will be developed. The adequacy of the operational and support procedures that will be implemented to eliminate, control, or abate identified hazards or risks will then be evaluated and a second risk assessment completed to verify that a satisfactory safety level has been achieved.

1.4.1.3 Notification of Noncompliance

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall make no part of the time lost due to such stop orders the subject of claim for extension of time or for excess costs or damages.

1.5 LIMITATION OF WORKING SPACE

The Contractor shall, except where required for service connections or other special reasons, confine his operations strictly within the boundaries of the site. Workmen will not be permitted to trespass on adjoining property. Any operations or use of space outside the boundaries of the site shall be by arrangement with all interested parties. It must be emphasized that the Contractor

must take all practical steps to prevent his workmen from entering adjoining property and in the event of trespass occurring the Contractor will be held entirely responsible.

Areas located immediately outside the construction area are known to contain mines and unexploded ordnance (UXO). Contractors assume all risks when venturing in or out of the designated work area.

1.6 TEMPORARY STRUCTURES

The Contractor shall erect suitable temporary fences, lighting, and necessary structures to safeguard the site, materials and plant against damage or theft and for the protection of the general public and shall adequately maintain the same throughout the course of the contract.

1.7 SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the contractor.

1.8 List of Codes and Technical Criteria:

The following codes and technical criteria and those referenced therein shall be required for this project. ***References within each reference below shall be required and adhered to.*** This list is not exhaustive and is not necessarily complete.

AABC - Associated Air Balance Council (National Standards for total System Balance)
Air Force Manual 32-1071, Security Engineering, volumes 1-4, 1 May 1994
American Water Works Association, ANSI/AWWA C651-99 standard
ARI - Air Conditioning and Refrigeration Institute
Army TM 5-853-1, Security Engineering, vols. 1 through 4, 12 May 1994
ASCE 7-02, Minimum Design Loads for Buildings and Other Structures, 2002
ASHRAE - American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME - American Society for Mechanical Engineering
ASTM - American Society for Testing and Materials
AWS - American Welding Society
EIA ANSI/TIA/EIA-607: (1994) Commercial Building Grounding/Bonding Requirement Standard.
Factory Mutual (FM) Approval Guide-Fire Protection (2002).
IBC - International Building Code (and its referenced codes including those inset below)
  IMC – International Mechanical Code
  IPC – International Plumbing Code
Lighting Handbook, IESNA, latest edition
Codes and Standards of the National Fire Protection Association (NFPA)
[as applicable and enacted in 2003, unless otherwise noted].
NFPA 10, Portable Fire Extinguishers, 2002 edition
NFPA 70, National Electrical Code, 2002 edition
NFPA 72, National Fire Alarm Code, 2002 edition
NFPA 90A, Air Conditioning and Ventilating Systems, 2002 edition
NFPA 101, Life Safety Code, 2003 edition
SMACNA - Sheet Metal and Air Conditioning Contractors' National Association
International Mine Action Standards, latest edition; see http://www.mineactionstandards.org for copy of standards.
UFC 1-200-01, Design: General Building Requirements, 31 July 2002
UFC 3-240-03, Operation and Maintenance: Wastewater Treatment System Augmenting Handbook
UFC 3-600-01, Design: Fire Protection Engineering for Facilities, 16 January 2004

UFC 4-010-01, Design: Minimum DoD Antiterrorism Standards for Buildings, 8 Oct 2003
UFC 4-010-02, DoD Minimum Antiterrorism Standoff Distances for Buildings, 8 Oct 2003
Underwriters' Laboratories (UL) Fire Protection Equipment Directory (2002).
USCINCCENT OPORD 97-1

The publications to be taken into consideration shall be those of the most recent editions. Standards other than those mentioned above may be accepted if the standards chosen are internationally recognized and meet the minimum requirements of the specified standards. The Contractor shall be prepared to submit proof of this if requested by the Contracting Officer.

2. SITE DEVELOPMENT:

2.1 GENERAL

The project includes furnishing all materials, equipment and labor for constructing fencing, ECPs, guard towers, guard buildings with septic systems and all other facilities as required by this contract.

2.2 ENVIRONMENTAL PROTECTION

2.2.1 Applicable Regulations

The Contractor shall comply with all Host Nation laws, rules, regulations or standards concerning environmental pollution control and abatement with regard to discharge of liquid waste into natural streams or manmade channels. The contractor shall review host nation and U.S. Government environmental regulations with the contracting officer prior to design and discharge of any liquid wastes into natural streams or manmade channels.

2.2.2 Notification

The Contracting Officer will notify the Contractor in writing of any observed non-compliance with the foregoing provisions. The Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No extension of time or damages will be awarded to the Contractor unless it was later determined that the Contractor was in compliance.

2.2.3 Spillages

Measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides and insecticides, and construction materials from polluting the construction site and surrounding area.

2.2.4 Disposal

Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall be taken to a dumpsite off site and subject to the approval of the Contracting Officer. Burning at the project site for the disposal of refuse and debris will not be permitted.

2.3 CIVIL SITE DEVELOPMENT

The site plan shall show geometric design of the site, including applicable dimensions of all exterior facilities, mechanical equipment, pavements, utilities, etc. Required facilities are described in the following sections of this specification. All roads and areas where tractor-trailer vehicles will travel shall be designed for the worst case turning radius. Design and construction of roads and pavements shall be based on recommendations from geotechnical investigation

required herein.

All site plans and master plans shall be drawn in the following projection and datum for incorporation into the U.S. Army Corps of Engineers GIS system:

WGS 1984 UTM Zone 42 N

2.3.1 Grading and Drainage

The contractor will provide all necessary site grading to insure adequate drainage so that no areas around the buildings will be flooded due to a rainfall of a 10-year frequency. Drainage of the area should be compatible with the existing terrain.

2.3.2 Paving

2.3.2.1 Bridges and Site Grading Plan

Preliminary investigation indicates no need for bridges or major drainage structures for the scope of this project. The Contractor shall notify the Contracting Officer immediately if initial site survey determines that area hydrology requires major drainage structures or bridges. The contractor shall design a site grading plan that provides positive drainage and minimizes the requirement for major structures in a cost effective manner.

3. STRUCTURAL

3.1 GENERAL

The project consists of various structures. The new buildings shall be provided with a reinforced concrete slab foundation that is properly placed on suitable compacted ground area and shall be in accordance with the recommendations from the geotechnical investigation. The reinforced concrete foundation shall be designed by the Contractor.

3.2 DESIGN

Design shall be performed and design documents signed by a registered professional architect and/or engineer. Calculations shall be in (SI (metric) units of measurements. All components of the building shall be designed and constructed to support safely all loads without exceeding the allowable stress for the materials of construction in the structural members and connections.

3.3 DEAD AND LIVE LOADS

Dead loads consist of the weight of all materials of construction incorporated in the buildings. Live loads used for design shall be in accordance with the American Society of Civil Engineers, ASCE STANDARD, and Minimum Design Loads for Buildings and Other Structures, ASCE 7, edition as referenced herein.

3.4 WIND LOADS

Wind loads shall be calculated in accordance with ASCE 7 using a "3-second gust" wind speed of 125 km/hr. All facilities shall be classified as a minimum of Category II in accordance with Table 1-1 in ASCE 7, referenced herein.

3.5 SEISMIC

The building and all parts thereof shall be designed for the seismic requirements as defined by the International Building Code referenced herein. Site-specific data: Spectral ordinates SS=1.65g and S1=0.75g. Soil profile, Site Class D.

3.6 STRUCTURAL CONCRETE

Concrete structural elements shall be designed and constructed in accordance with the provisions of the American Concrete Institute, Building Code Requirements for Structural Concrete, ACI 318, latest edition. A minimum cylinder compressive strength of 4000 psi (28 mPa) shall be used for design and construction of all concrete. Reinforcing steel shall be deformed bars conforming to American Society for Testing and Materials (ASTM) publication ASTM a 615, Deformed and Plain Billet-Steel Bars for Concrete Reinforcement. Concrete at or below grade shall have maximum water-cement ration of 0.40. No concrete shall be placed when the ambient air temperature exceeds 32 degrees C (90 degrees F) unless an appropriate chemical retardant is used. In all cases when concrete is placed at 32 degrees C (90 degrees F) or hotter it shall be covered and kept continuously wet for a minimum of 48 hours. Concrete members at or below grade shall have a minimum concrete cover over reinforcement of 3" (75 millimeters).

3.7 MASONRY

Masonry shall be designed and constructed in accordance with the provisions of Building Code Requirements for Masonry Structures, ACI 530/ASCE 5/TMS 402, latest editions. Mortar shall be Type S and conform to ASTM C 270, latest edition. Masonry shall not be used below grade, unless for fully reinforced and grouted foundation stem walls.

3.8 STRUCTURAL STEEL

Structural steel shall be designed and constructed in accordance with the provisions of American Institute of Steel Construction (AISC), Specifications for Structural Steel Buildings, 9th Edition. Design of cold-formed steel structural members shall be in accordance with the provisions of American Iron and Steel Institute (AISI), Specifications for Design of Cold-Formed Steel Structural Members.

3.9 METAL DECK

Deck units shall conform to SDI Pub. No. 29. Panels of maximum possible lengths shall be used to minimize end laps. Deck units shall be fabricated in lengths to span three or more supports with flush, telescoped or nested 50 mm (2 inch) laps at ends, and interlocking, or nested side laps. Metal deck units shall be fabricated of steel thickness required by the design and shall be galvanized.

3.10 OPEN WEB STEEL JOIST

Open web steel joists shall conform to SJI Specifications and Tables. Joists shall be designed to support the loads given in the standard load tables of SJI Specifications and Tables.

3.11 FOUNDATIONS

Foundations shall be in accordance with the Geotechnical requirements of this RFP.

4. GEOTECHNICAL

Existing geotechnical information is not available at the project site. Any site-specific geotechnical data required to develop foundations, materials, earthwork, and other geotechnical related design and construction activities for this project shall be the Contractor's responsibility. The Contractor shall develop all pertinent geotechnical design and construction parameters by appropriate field

and laboratory investigations and analyses.

5. FIRE PROTECTION

5.1 GENERAL

Facility construction and fire protection systems shall be installed in accordance with the publications listed herein and the publications referenced therein. Where a conflict occurs among various criteria, the more stringent requirement shall take precedence.

5.2 BUILDING CONSTRUCTION

Building construction shall conform to fire resistance requirements, allowable floor area, building height limitations and building separation distance requirements of the building code.

5.3 LIFE SAFETY

Facilities features will be provided in accordance with NFPA 101, among other references, to assure protection of occupants from fire or similar emergencies.

5.4 FIRE PROTECTION EQUIPMENT

All fire protection equipment shall be listed by Underwriters' Laboratories (UL) or approved by Factory Mutual (FM) and shall be listed in the current UL Fire Protection Equipment Directory or Factory Mutual Approval Guide.

5.5 NOT USED

5.6 NOT USED

5.7 WATER SUPPLY FOR FIRE PROTECTION

A dedicated fire protection water supply is unavailable. Therefore, alternate methods of design and construction are being instituted.

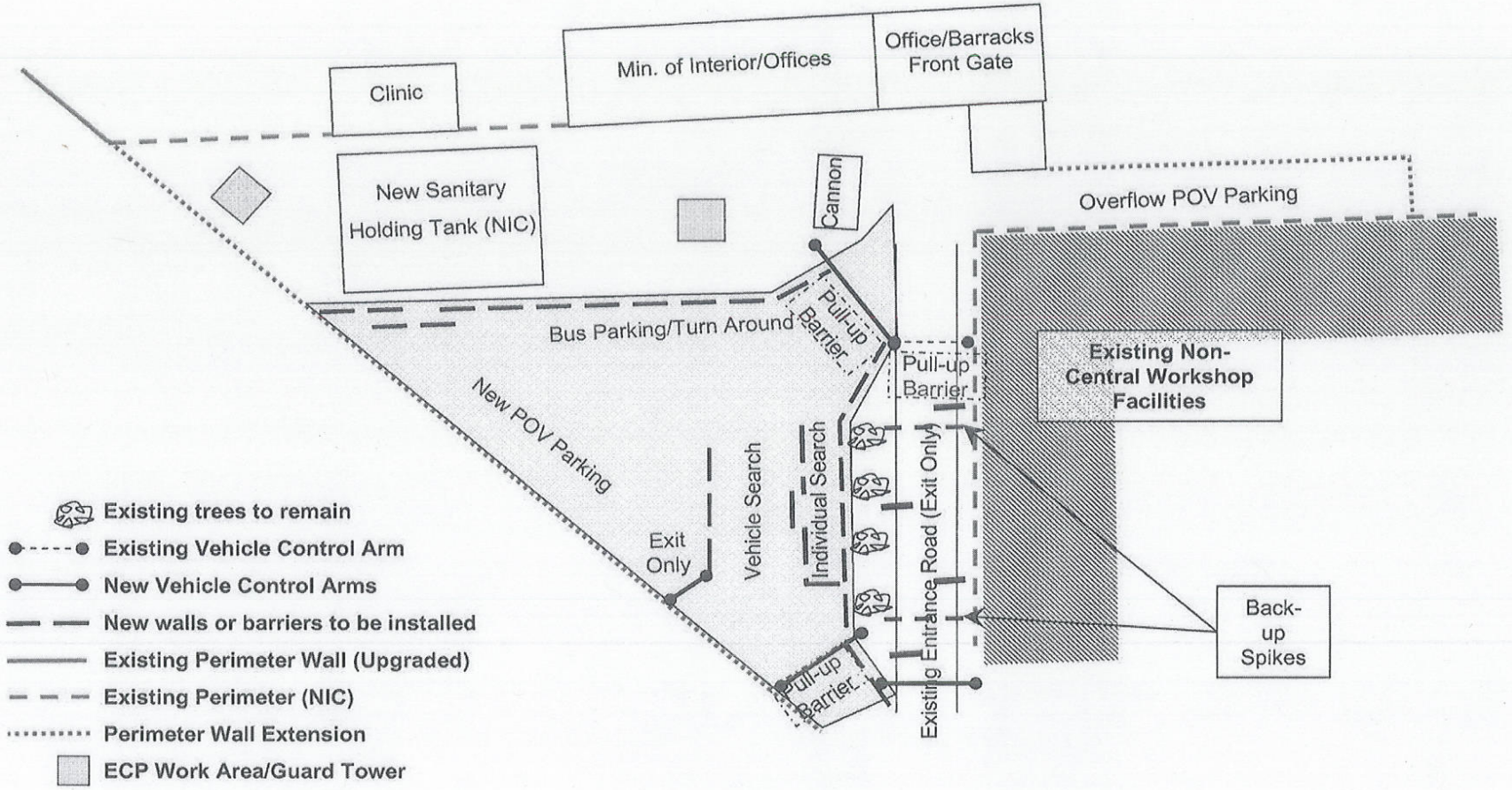
5.8 PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers shall be provided inside all facilities and at exterior locations as required in accordance with NFPA 10. Generally, extinguishers will be of the multi-purpose dry chemical type except for occupancies requiring a special type extinguisher (e.g., carbon dioxide portable fire extinguishers for electrical rooms).

-- END OF SECTION --

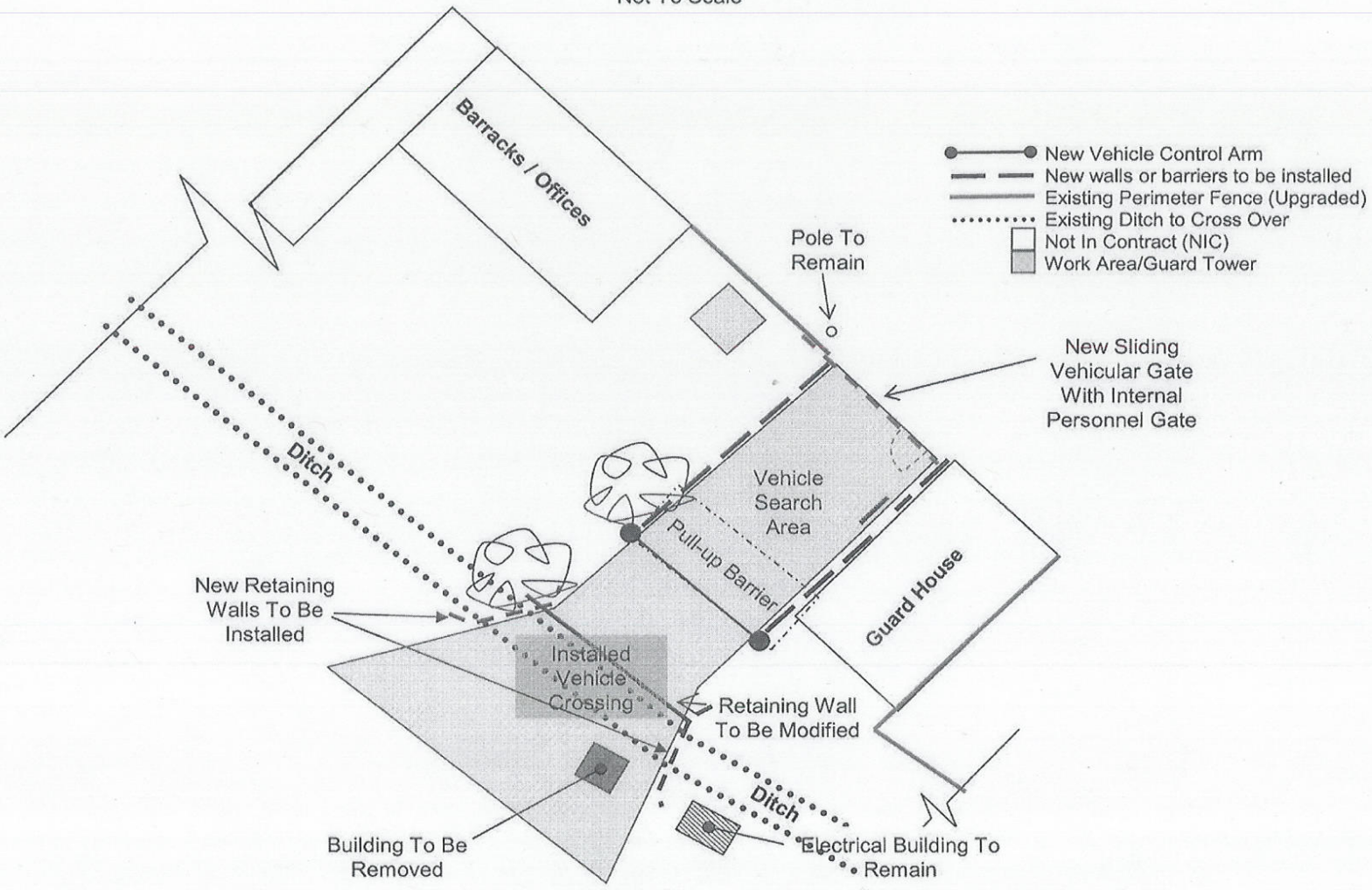
CMD Primary ECP Upgrade
Concept Drawing

Not To Scale



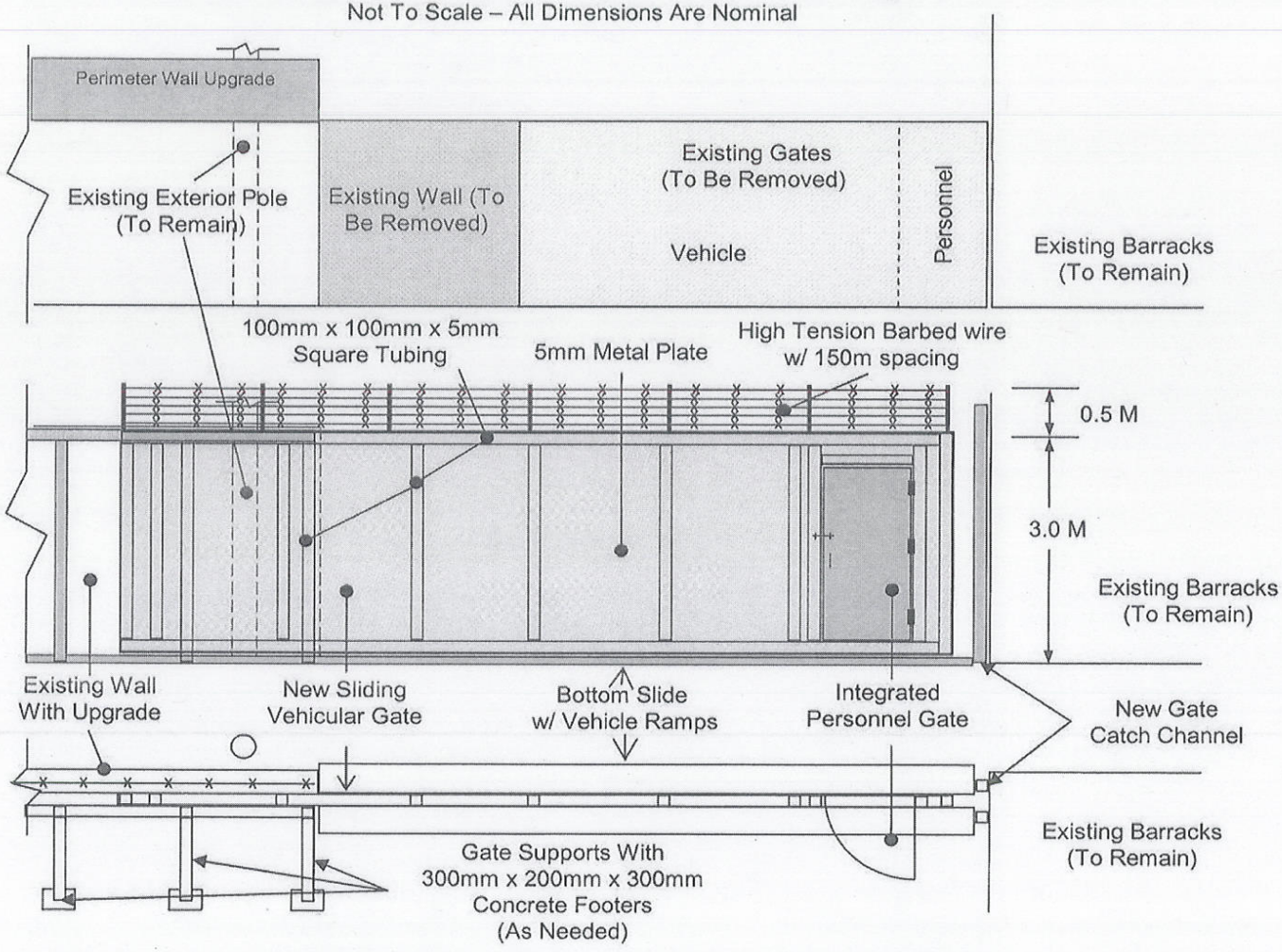
CMD Secondary ECP Upgrade
Concept Drawing

Not To Scale



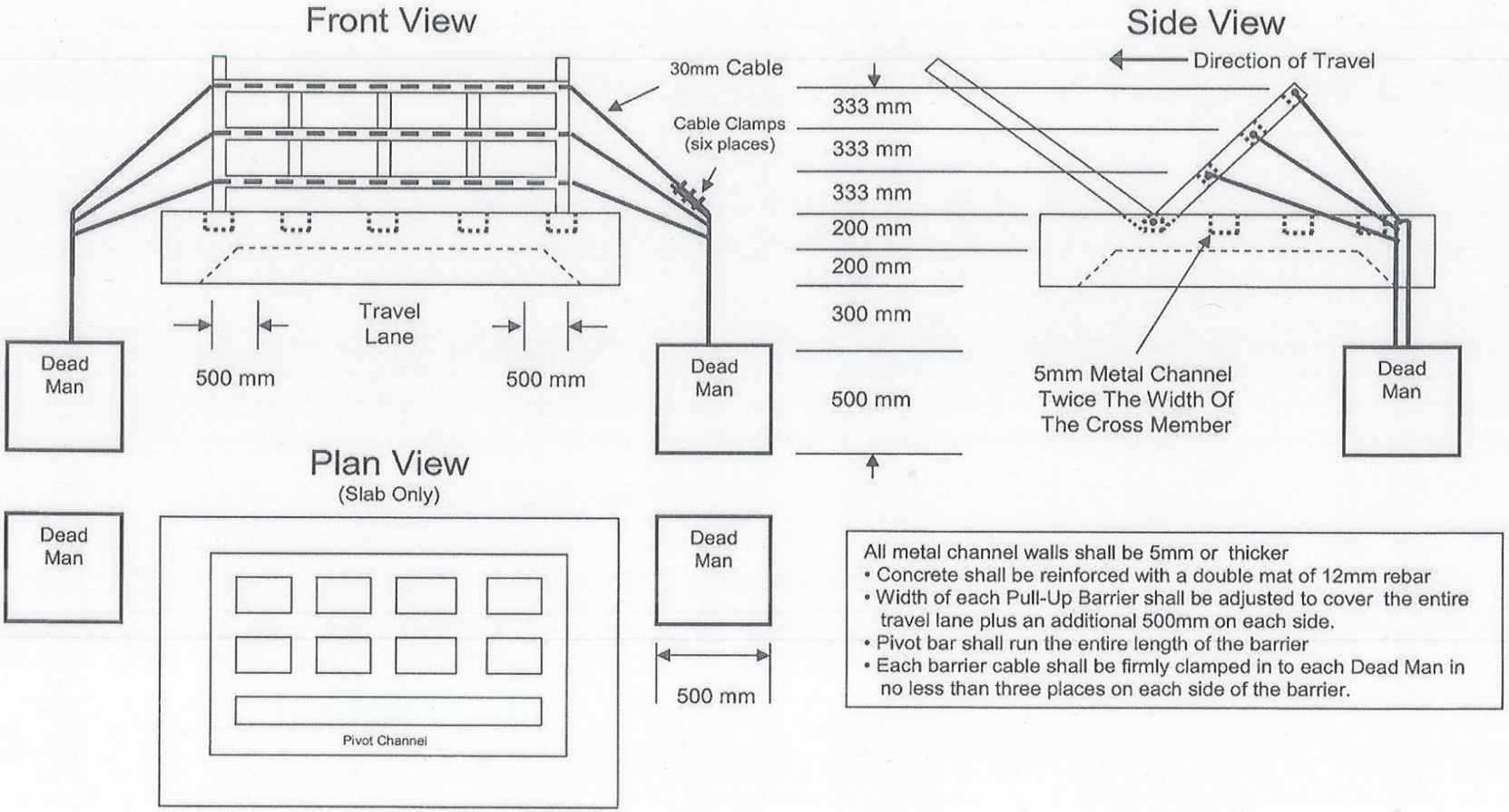
CMD Secondary ECP Sliding Gate Concept Drawing

Not To Scale – All Dimensions Are Nominal



CMD Pull-Up Barrier
Concept Drawing

Not To Scale – All Dimensions Are Nominal

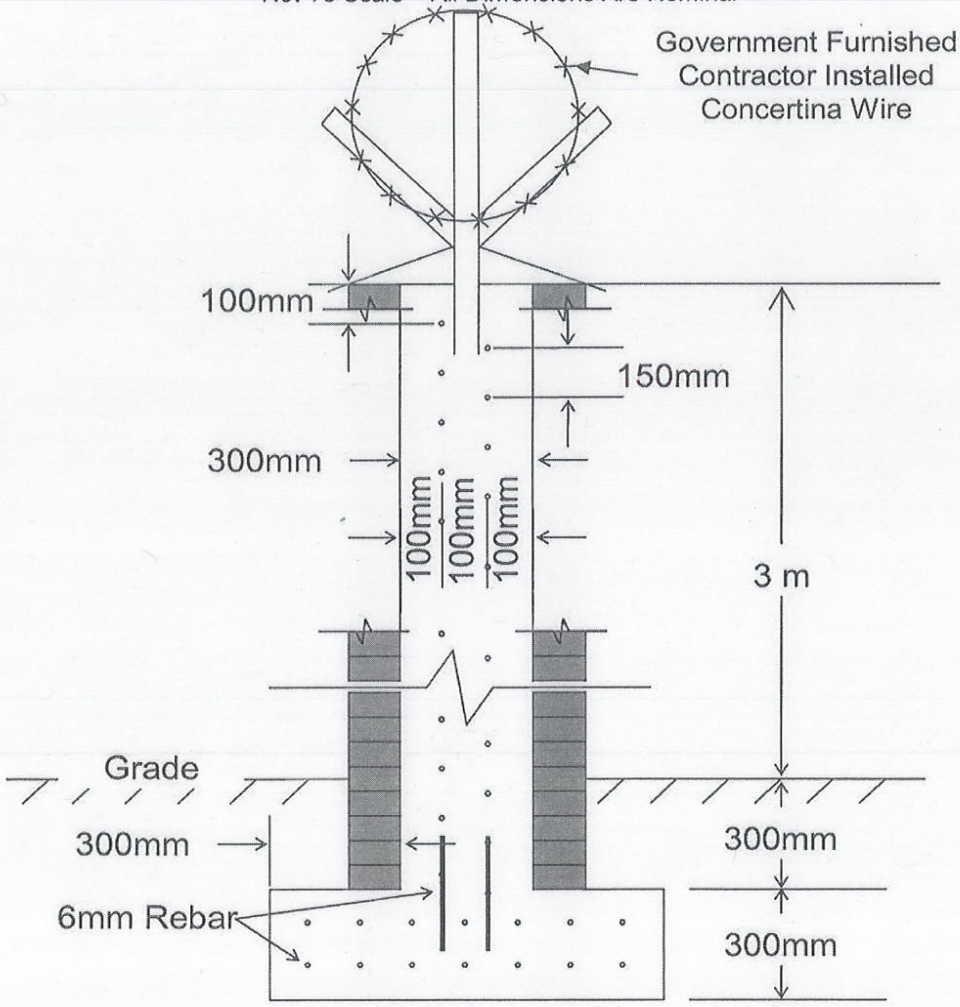


All metal channel walls shall be 5mm or thicker

- Concrete shall be reinforced with a double mat of 12mm rebar
- Width of each Pull-Up Barrier shall be adjusted to cover the entire travel lane plus an additional 500mm on each side.
- Pivot bar shall run the entire length of the barrier
- Each barrier cable shall be firmly clamped in to each Dead Man in no less than three places on each side of the barrier.

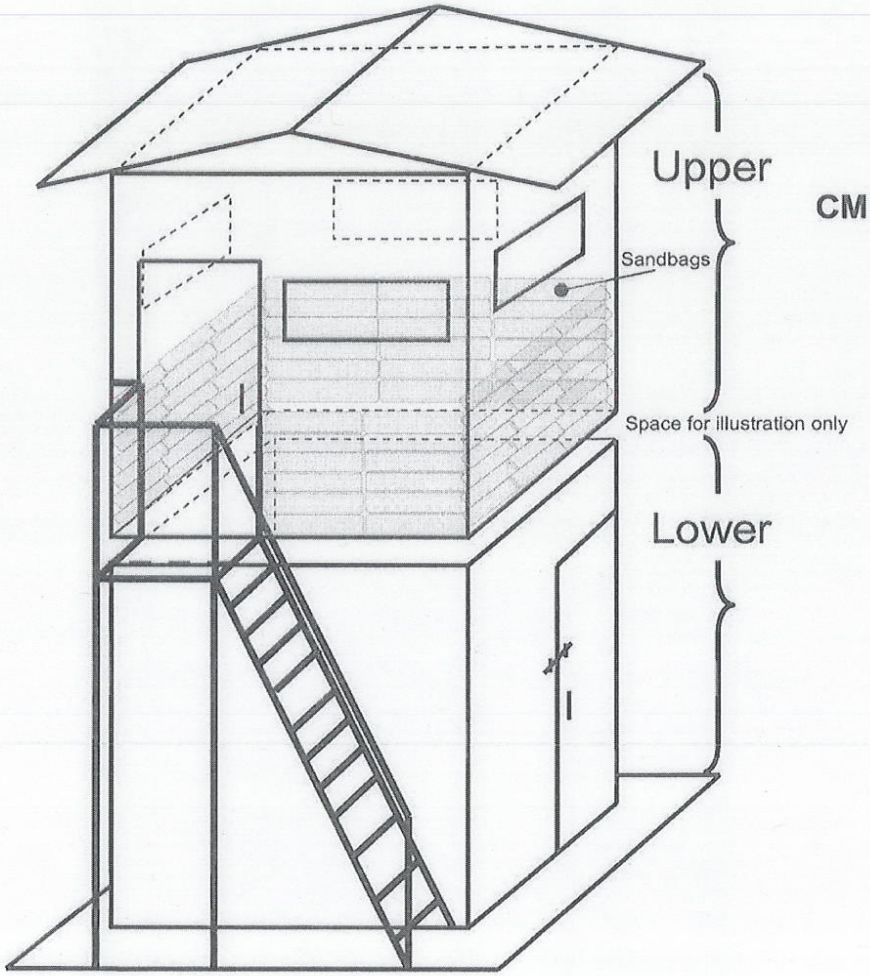
CMD New ECP and Wall Extension Concept Drawing

Not To Scale – All Dimensions Are Nominal



CMD Guard Tower
Concept Drawing

Not To Scale – All Dimensions Are Nominal



CMD Guard Towers Design Concept

- All metal construction
- Primed and painted (2 coats of enamel)
- Minimum size 2.5M x 2.5M inside space
- Height of each section 3M
- Lower section enclosed and lockable
- Upper section enclosed with a 1.0M x 0.3M window on each side and an access door
- Access ladder or stairs
- Must be able to support contractor installed sandbags (1.2 M high) inside upper level
- Pitched Roof
- Sections (upper and lower) must be able to be used independently and be able to be relocated independently
- Concrete slab 150mm with double mat of 13mm rebar and 300mm thickened edge